



# WÄRTSILÄ 31DF THE MOST EFFICIENT MULTI-FUEL ENGINE GENERATING SET

The Wärtsilä 31DF four-stroke multi-fuel engine generating set features world-class efficiency and fuel flexibility. The generating set is specifically designed for flexible power generation, providing a tool for the integration of high levels of energy from renewable sources.

Wärtsilä helps customers unlock the value of the energy transition by optimising their energy systems and future-proofing their assets. We offer flexible power plants, energy management systems, and storage, as well as engineering, procurement and construction (EPC) deliveries and full lifecycle support that ensure guaranteed performance.

## Key features

- World-class open-cycle efficiency of close to 50%
- Enables energy security through fuel flexibility by running on gaseous and liquid fuels and switching seamlessly between fuels during engine operation
- Easy fuel conversions will guarantee the highest efficiency throughout the lifecycle of the plant
- Can be optimised for diesel operation should gaseous fuel not be immediately available and is also capable of continuous operation on heavy fuel oil (HFO)
- Can be adapted to run on synthetic renewable fuels thanks to modular design
- Advanced UNIC engine control system, together with the injection system and the variable valve timing
- Dynamic operational features
- Synchronises with the grid within 30 seconds from start command
- Can provide full output within 120 seconds from start command
- Unparalleled load following capabilities and high part load efficiency
- Supports off-grid operation and provides fast black start capabilities for isolated energy systems
- Optimised performance and efficiency supported by Wärtsilä Lifecycle solutions



**WORLD-CLASS OPEN  
CYCLE EFFICIENCY  
FOR FLEXIBLE AND  
SUSTAINABLE POWER  
GENERATION**



**FUEL FLEXIBILITY**



**REDUCED  
ENVIRONMENTAL  
FOOTPRINT**



## MAIN TECHNICAL DATA

Engine generating set, 50 & 60 Hz	
Cylinder configurations	12V, 16V & 20V
Cylinder bore	310 mm
Piston stroke	430 mm
Engine speed	750 rpm (50 Hz), 720 rpm (60 Hz)
Mean piston speed	10.8 m/s (50 Hz), 10.3 m/s (60 Hz)

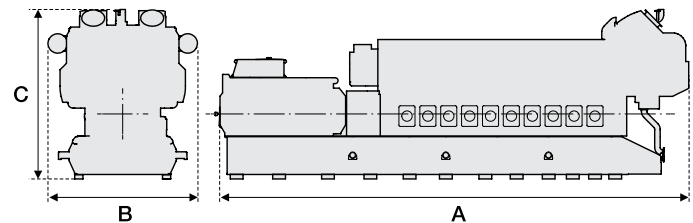
### Rated electrical power Gas / LFO / HFO (kW)

Genset type	50 Hz	60 Hz
12V31DF	7 034	6 779
16V31DF	9 403	9 075
20V31DF	11 779	11 377

### Maximum transportation dimensions (mm) and weights (tonnes)<sup>1</sup>

Genset type	Length (A)	Width (B)	Height (C)	Dry weight
12V31DF	11 126	3 785	4 985	127
16V31DF	12 706	3 893	5 034	150
20V31DF	14 412	3 893	5 090	182

<sup>1</sup> There are a number of dismantling options available for transportation of the generator set. These include different options for reduced weight and height. Please contact Wärtsilä for further information.



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